



UNITED STATES PATENT AND TRADEMARK OFFICE

SPM
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,349	08/14/2001	Joong-Hyun Mun	06192.0263.NPUS00	6679

7590 11/20/2003
MCGUIRE WOODS LLP
1750 TYSONS BOULEVARD
SUITE 1800
MCLEAN,, VA 22102

EXAMINER

NGO, HUYEN LE

ART UNIT PAPER NUMBER

2871

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,349

Applicant(s)

MUN ET AL.

Examiner

Julie-Huyen L. Ngo

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-38 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 12-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II readable on claims 9-11 in Paper filed on October 08, 2003 is acknowledged.

The traversal is on the ground(s) that the subject matter of all claims is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims, and that the search and examination of the entire application could be made without serious burden.

This is not found persuasive because the inventions claimed are distinct, each from the other, i.e., inventions of groups I, II and III are unrelated, in that they comprise different features as recited (see Election/Restriction requirement sent in September 8, 2003). These inventions are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects.

Furthermore, the inventions of groups II and III are distinct from groups IV, VI and VII since the inventions of groups IV, VI and VII and groups II and III are related as process of making and product made. For instant the products as claimed can be made by another and materially different processes:

The product in group II can be made by another and materially different processes such as the processes recited in claims 15, 17 or 19 of groups IV and VI.

The product in group III can be made by another and materially different processes such as the processes recited in claims 32, 34 or 38 of groups VII.

Nevertheless, this application discloses the patentably distinct species of the claimed invention; however, Applicant fails to identify the species that is elected consonant with this requirement by listing of all claims and any drawings readable thereon; and fails to submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their recognized divergent subject matter, patentably distinct species, and are classified in different classifications, restriction for examination purposes as indicated is proper.

Therefore, it would be burdened on the Examiner to exam ALL Groups of inventions for the reasons set forth above and the requirement is still deemed proper and is maintained.

Accordingly, the election is considered to be elected without traverse, and claims 8,12-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention/Species, there being no allowable generic or linking claim.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Korea on August 14, 2000, January 2001, August 5 and 7, 2001. It is noted, however, that applicant has not filed the certified copies of these applications as required by 35 U.S.C. 119(b).

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The abstract of the disclosure is objected to because it not clearly states which is new in the art to which the invention pertains.

Correction is required. See MPEP § 608.01(b)

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 10, the recitation calling for "*the first and the second protrusions are formed with one or more of a photosensitive organic insulating layer, a photoresist film,*" is not described in the specification. According to the specification (page 21), the first and the second protrusions are formed with ONLY one of a photosensitive organic insulating material, a positive or negative photosensitive material, or a silicon-based insulating material.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipate by Kurihara et al. (US 6501529 B1).

With respect to claim 9, Kurihara discloses (col. 4 to col. 5, line 8, figures 8 and 9) a color filter substrate for a liquid crystal display, comprising:

- an insulating substrate 17;
- a black matrix 22 formed on the insulating substrate;
- a color filter 21 formed at the black matrix;
- a common electrode 25 formed on the entire surface of the common electrode;
- and first 31 and second protrusions 32 formed on the common electrode, the first protrusion having a first thickness, the second protrusion having a second thickness, the second thickness being greater than the first thickness.

wherein

(Claim 10)

- the first and the second protrusions are formed with one or more of a photosensitive organic insulating layer, a photoresist film, and a silicon-based insulating layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurihara et al. (US 6501529 B1) as applied to claim 9 above and further in view of Kim et al. (US 6567144 B1).

Although Kurihara does not specifically disclose that the common electrode in their device is formed of indium tin oxide or indium zinc oxide (ITO), it is well known and conventional in the art for a common electrode be formed of ITO for having transparency with high conductivity as evidenced by Kim with an ITO common electrode 13 formed over the color filter 12 having black matrix 11 formed within.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the inventions was made to form the common electrode in Kurihara device by Ito material for having transparency with high conductivity.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yi et al (US 20020140893 A1) disclose a method for fabricating a spacer for liquid crystal display.

Sawasaki (US 20010026347 A1) disclose a liquid crystal display device and method of manufacturing the same having spacers and the projections, each having a different height, can be formed simultaneously.

Contact Information

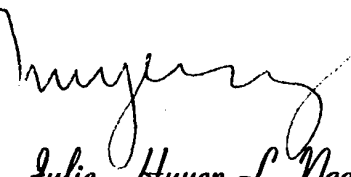
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (703) 305-3508. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (703) 305-3492.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Papers related to this application may be submitted by facsimile transmission at the centralized facsimile number (703) 872-9306.

November 15, 2003


Julie-Huyen L. Ngo
Patent Examiner
Art Unit 2871